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### JEEP 2018-19 JL 3.6L Engine Skid Plate

### Thank you for choosing Rough Country for all your vehicle needs.

Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go.

If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product. Check all fasteners for proper torque. Check to ensure for adequate clearance between all components. Periodically check all hardware for tightness.

## KIT CONTENTS: Front Drivers Side Bracket x 1 Front Pass. Side Bracket x 1 Engine Skid Plate x 1

## TOOLS NEEDED: 18mm Wrench and Socket 19mm Wrench and Socket 3/4 Wrench and Socket 9/16 Wrench and Socket

HARDWARE INCLUDED:

3/8-16 x 1 Hex Head Bolt x 4

3/8 Flat Washer x 8

3/8 Nylock Nut x 4

1/2-13 x 1 1/4 Hex Head Bolt x 3

1/2-13 Nylock Nut x 3

1/2 Flat washer x 8

12mm-1.5 x 40 Hex Head Bolt x 2

12mm Flag Nut x 1



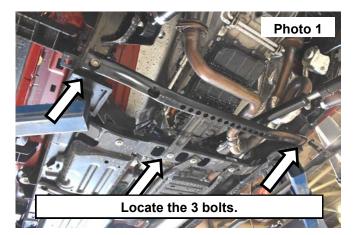
### **Torque Specs:**

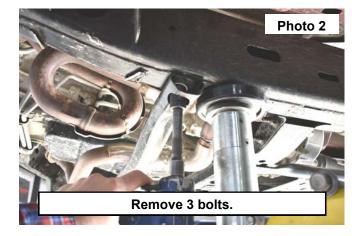
Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16"	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8"	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16"	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2"	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16"	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8"	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4"	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs



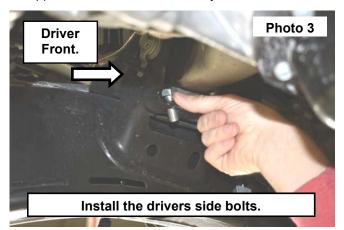
#### **INSTALLATION INSTRUCTONS**

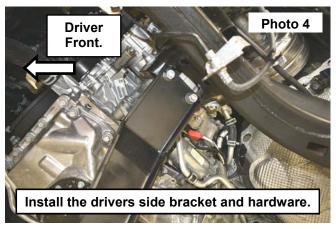
- 1. Jack up the front of the vehicle. Place jack stand under the frame and lower the vehicle down.
- 2. Remove the wheels and tires from the vehicle
- 3. Locate the 3 bolts in the front cross brace under the oil pan. See Photo 1.
- 4. Remove the 3 bolts from the front cross brace using an 18mm socket. Then remove the cross brace from the vehicle. Set a side this will not be used. **See Photo 2.**



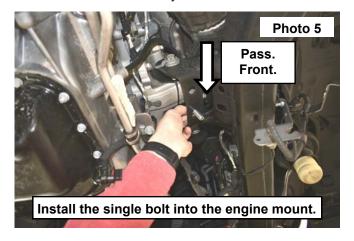


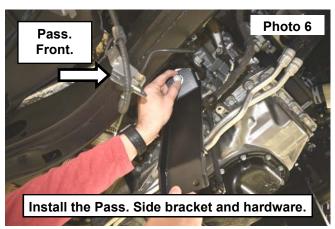
- 5. Install 2 of the supplied 1/2-13 x 1 1/4 Bolts and 1/2" Flat washer into the top inside of the Drivers side engine mount. **See Photo 3.**
- 6. Install the drivers side skid plate bracket onto the installed bolts and engine mount. Secure the bracket using the supplied 1/2" flat washers and nylock nuts. **See Photo 4.**





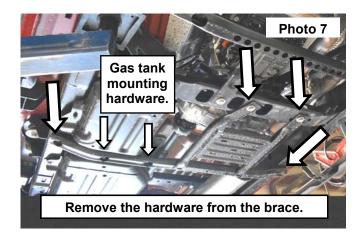
- 7. Install 1 of the 1/2-13 x 1 1/4 Bolt and 1/2" flat washer into the front hole on the passengers side of the engine mount. See Photo 5.
- 8. Install the passengers side bracket with the single hole onto the bolt in the engine mount. Secure using the 1/2" flat washer and the 1/2-13 nylock nut. **See Photo 6.**

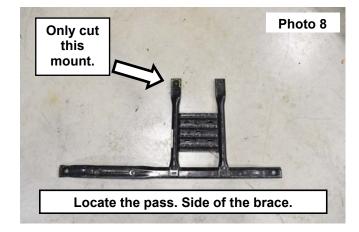




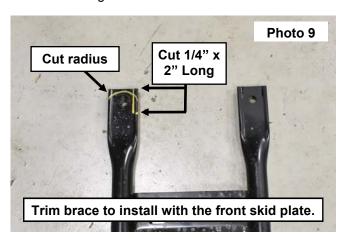


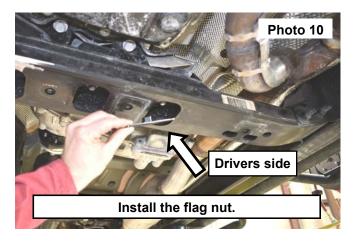
- 9. Remove the 2 nuts from the gas tank mount in the rear cross brace using a 15mm socket. Then remove the 3 bolts securing the rear cross brace to the frame using an 18mm socket. Retain the cross brace and the removed hardware. **See Photo 7.**
- 10. If you are installing the Rough Country transfer case skid plate kit skip to step 13.
- 11. View photo 8 for the location of the mount on the passengers side of the cross brace that needs to be trimmed. **See Photo 8.**



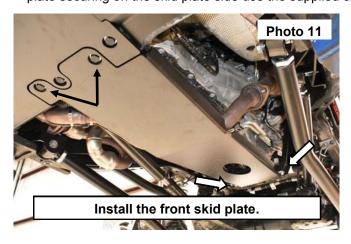


- 12. Only trim the passengers side of the gas tank cross brace. Mark and cut off 1/4" over from the side and 2" down from the top. Mark and trim a new radius onto the front of the cross brace. Final trimming may need to be made on installation. Sand any rough edges and apply color match paint to prevent rusting. **See Photo 9.**
- 13. Install the flag nut into the transmission crossmember on the drivers side. See Photo 10.





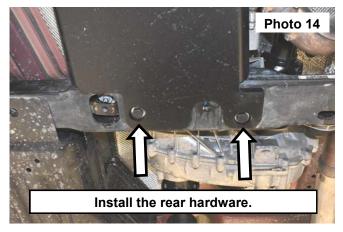
- 14. Install the front skid plate onto the front 2 mounts and the rear cross member. See Photo 11.
- 15. Install the supplied 3/8-16 x 1" Bolts and 3/8 flat washers into the drivers and passengers side mounts and the skid plate securing on the skid plate side use the supplied 3/8 washer and 3/8 nylock nut. **See Photos 12 and 13.**





- 16. Install the 2 supplied 12mm-1.5 x 40mm hex head bolts with the (2) 1/2" washers into the rear crossmember mount. Tighten using a 19mm socket. **See Photo 14.**
- 17. Tighten the front upper bracket 1/2" bolts using a 3/4 socket and wrench.
- 18. Tighten the front 3/8" bracket to skid plate bolts using a 9/16 wrench and socket.
- 19. If installing the Rough Country transferase skid plate follow the instructions with that skid plate if not skip to the next step.





- 20. Install the gas tank crossmember back onto the vehicle using the OE hardware. Check the cut areas for clearance around the new skid plate. Tighten using a 18mm socket. **See Photo 15.**
- 21. The hole in the skid plate will be used to access the oil drain plug in the oil pan. See Photo 16.





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